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BULLETIN

OF

The National Association for the Study and Prevention of Tuberculosis

Vol. II. MAY, 1916. No. 8.

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New Standard Pamphlet Ready

Announcement was made in the September issue of the *Bulletin* of the preparation of a standard pamphlet on tuberculosis, which would give briefly and in an understandable form the facts that every tuberculous person should know. The pamphlet is now complete and has been printed by the American Medical Association as one of its series of pamphlets on public health. The booklet, therefore, bears the endorsement of both the American Medical Association and The National Association for the Study and Prevention of Tuberculosis.

It has been prepared with painstaking care and subjected to careful revision, by the following members of the committee, which is sufficient guarantee of its readability and accuracy: Charles L. Minor, M.D., Asheville, chairman; David R. Lyman, M.D., Wallingford, Conn.; W. H. Baldwin, Washington, D. C.; H. R. M. Landis, M.D., Philadelphia, and John H. Lowman, M.D., Cleveland.

This standard pamphlet is not designed for promiscuous distribution at meetings, exhibits, etc. It is intended rather to meet the need for an authoritative pamphlet for distribution direct to tuberculous patients and those living with them. It will be of inestimable value to visiting nurses, sanatoria and hospitals, dispensaries, open air schools, employees benefit associations, boards of health, and anti-tuberculosis associations. Through some channel a copy of this pamphlet should be placed in the hands of every tuberculous patient and the importance of the information in it should be impressed upon those who live with such patients.

Another group who will find this pamphlet of great service are the lecturers about tuberculosis. The facts that are known about tuberculosis are all presented in clear language, easily understood, and the various speculative theories, that are much discussed but not fully proven, are carefully avoided. The person who reads the book may rest assured that he is getting authoritative facts, and the lecturer who builds his talk upon the basis of this information may be certain of the ground he has taken. For the workers in the anti-tuberculosis campaign, it need only be said that it is a part of their duty to become thoroughly familiar with this pamphlet.

The book is entitled "What You Should Know About Tuberculosis: Useful Facts for the Tuberculous and Those Living With Them." A list of the main headings will give some idea of its contents. They are: Do You Value Your Health?; Why Are People Afraid of Tuberculosis?; Why Should You Bother Yourself About It if You Are Not Sick with It?; What Is Tuberculosis?; How and When Do People Take This Disease?; How Can You and Your Family Keep from Getting the Disease?; If You Catch the Disease, How Can You Find It Out Soon Enough to Cure It?; If You Have Contracted the Disease, Can You Get Well, and How?; If You or Your Family or Some One Else in Your House Has the Disease What Must Be Done to Keep It from Spreading to Others?; How Must You Live After You Are Apparently Well Again so as to Remain Well?; What Work May One Do After the Disease Has Been Thoroughly Arrested?; How Soon May One Return to Work After the Disease is Arrested?; How to Prevent Tuberculosis in Your Community; Your Responsibility for Tuberculosis; Whom to Ask About Tuberculosis; Some Books and Articles on Tuberculosis.

An extremely low price is quoted for the pamphlet, the price being $15 per thousand in quantities of five thousand or less, and $12 per thousand in quantities of more than five thousand. The quotations are f. o. b. Chicago. Arrangements can be made for imprinting the covers of the pamphlets with the name of the organization distributing them, instead of the name of the National Association or in addition to the name of either the American Medical Association or the National Association. A slight additional charge for this imprinting will be made on lots of five thousand or less. The imprinting will bed one without extra charge on orders for more than five thousand. It is hoped that the booklet will be used extensively by the groups for whom it is intended. Each member of the National Association is entitled to a copy free upon request.

"A Pageant of Average Town"

WRITTEN BY NAN OPPENLANDER
Junior Chautauqua Director

COSTUMES

SPEAKER—Fanciful costume (Herald) of red satin.

PLAY—Toy Symphony costume.

TOWN—Slatternly worn soiled dress, run-down heels; later, clean, neat dress, ornamented with blue-prints and signs of "town planning."

HERALDS—White suits, to be supplied by wearers.

HEALTH—White nurse's dress, cap, red cross bands, nurse's apron.

CLEANLINESS—Street-cleaner's costume, brush, rubbish-can.

MUSIC—Cotton crêpe costume (on Greek lines), inexpensive ribbon around hair, little harp or lyre.

FLOWERS—White dresses with caps and wreaths of paper flowers.

MOSQUITOES—Gray wings—head.

FLIES—Black wings—head.

IMPURE MILK—Sandwich-board in pint-measure shape.

BACKYARD—Sandwich-board.

WAKE UP and CLEAN UP—White dresses, fairy wings, tinsel crowns.

BIRDS—Birds' heads; blue-bird costumes.

EXCUSES—Three heads—aristocrat, man; vagrant, woman; miser, old man.

PAGEANT OF AVERAGE TOWN

Two boys with badges on them—"The Junior Town—enter to lively music. They paste or tack up the sign "Pageant of Average Town" on the tent-poles. Then pointing to it, stand in a tableau while Speaker says:

SPEAKER—

The boys and girls of Junior Town
Are going to give a show;
A pageant about an average town;
It's what we all should know.

Two boys skip off to music, and Average Town enters, attended by Mosquitoes, Flies, Impure Milk, Ugly Backyards, etc. They group themselves languidly. Music changes to slow, dreary type.

SPEAKER—

Now once there was an Average Town,
And she was average slow;
She went to sleep and didn't wake up.
There are towns like that, you know.

Town and attendants go to sleep. About twelve children, six boys and six girls, come in to mysterious music, go over to Average Town, then come away, shaking their heads.

(*Continued on page 4*)

BULLETIN OF
THE
NATIONAL ASSOCIATION FOR THE STUDY AND PREVENTION OF TUBERCULOSIS
Published Monthly
In the Interest of Workers Engaged in the Anti-Tuberculosis Movement by
THE NATIONAL ASSOCIATION FOR THE STUDY AND PREVENTION OF TUBERCULOSIS
105 EAST 22ND STREET, NEW YORK CITY

Vol. II. MAY, 1916. No. 8.

Entered as Second Class Matter October 21, 1914, at the Postoffice at New York, N. Y., under the Act of August 24, 1912.

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Boost the Journal of the Outdoor Life

Have you been giving the *Journal of the Outdoor Life* the support it merits as the official organ of our association? The success of the magazine is largely dependent upon the support of our members and the efforts we make to interest others in it. Its work is our work, and its progress is our progress. If we neglect it, we are failing to make the most of the opportunity to promote the work and welfare of an important factor in the anti-tuberculosis campaign. With your help we can develop its possibilities for productive work and increase its influence in the anti-tuberculosis field. Will you put your shoulder to the wheel to help it along? Boost the *Journal of the Outdoor Life*.

The *Journal* has many special offers that are of importance to physicians, social workers, nurses and patients. With a yearly subscription for one dollar, the subscriber is given a book free of charge. He may select either Thomas C. Galbreath's helpful book, "TB. Playing the Lone Game Consumption," or an especially valuable and authoritative book of Dr. John B. Hawes, 2nd, "Consumption—What It Is and What To Do About It."

Another offer that is especially attractive to sanatorium patients is a clubbing proposition that is now in force and will apply until July 1. Sanatorium patients will be given a yearly subscription at fifty cents apiece in clubs of twenty. In other words, on a club of twenty subscriptions a discount of 50 per cent is given. Or if one who is unfamiliar with the *Journal* wants to learn more about it, he can secure a four months' trial subscription for twenty-five cents.

The September number of the *Journal* will feature the Mississippi Valley Convention to be held at Louisville during the month of October. Secretaries, physicians, social workers and nurses in the Mississippi Valley can contribute to the success of that issue by sending to the *Journal* brief notes and reports on their work. If illustrations can be supplied, so much the better, but in any event let those who have some valuable news or suggestions send their information to the *Journal*.

Another issue in the near future will contain a well-illustrated article by Sherman C. Kingsley of the Elizabeth McCormick Memorial Fund, Chicago, on Open-Air Schools and Open-Air Rooms and How to Build Them. Those who desire to secure additional copies of an especially valuable article such as this should place their orders early because the edition is soon exhausted.

The *Journal* is making every effort to produce bigger results, to fill a large sphere in the anti-tuberculosis campaign. You can do your part to help it to a position where it can play a more important part in this work than ever before, by subscribing and inducing others to subscribe. Get behind it and boost.

Higher Cost of Supplies

Present market conditions have compelled us to change the quotations for "Don't Cards," Book Marks, and standard cuts of the double red cross. Prices for the cuts are given in another article in this issue of the *Bulletin*, but for the present and until the paper market becomes more settled, the prices for the Book Marks will be given upon request.

"Don't Cards" may be secured at $2.50 per thousand in foreign languages and $2.20 per thousand in English. The languages in which the card has been printed are English, German, Spanish, Portuguese, Yiddish, Bohemian, Swedish, Finnish, Polish, French, Hungarian, Armenian, Turkish, Greek, Slavonian, Lithuanian, Russian, and Syrian. No orders aggregating less than one thousand are accepted.

It should be noted that this card, when folded, is blank on pages one and four, allowing for local information and statistics, such as the name of associations, officers, list of dispensaries, etc. Arrangements may be made for the imprinting of local matter in English on pages one and four, as per the following schedule. These prices include the original cost of the card and also the imprinting in English on pages one and four.

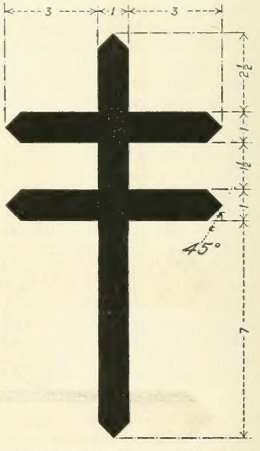
	English	Foreign
1000.....	$5.60	$5.90
2000.....	8.75	9.35
3000.....	11.80	12.70
5000.....	18.00	19.50
10000.....	33.00	36.00

Make checks payable to the printer, Frank F. Lisiecki, but send orders to the executive office of National Association.

The Standard Double Cross

Are you using the standardized form of the double red cross on your letterheads and literature? The use of the double red cross as a symbol or emblem to indicate the fight against tuberculosis dates back to 1902. In 1906, The National Association for the Study and Prevention of Tuberculosis adopted the emblem for use in the United States, but did not specify the form or proportions of the cross. Because of the multitude of emblems which came into use, a committee was appointed in 1912 to consider the designs and proportions of the double red cross, and to determine a standard form, to be used as the emblem of the anti-tuberculosis campaign in this country.

After careful study of the history and artistic merits of the various designs, a double cross was selected having the proportions shown in the figure. The width of the legs or arms is taken as the standard unit. It will be noted that the length of the lower leg below the cross arms is 7 units; the arms are three units on either side; the point is 2½ units above the arms; and the distance between the arms is 1½ units.

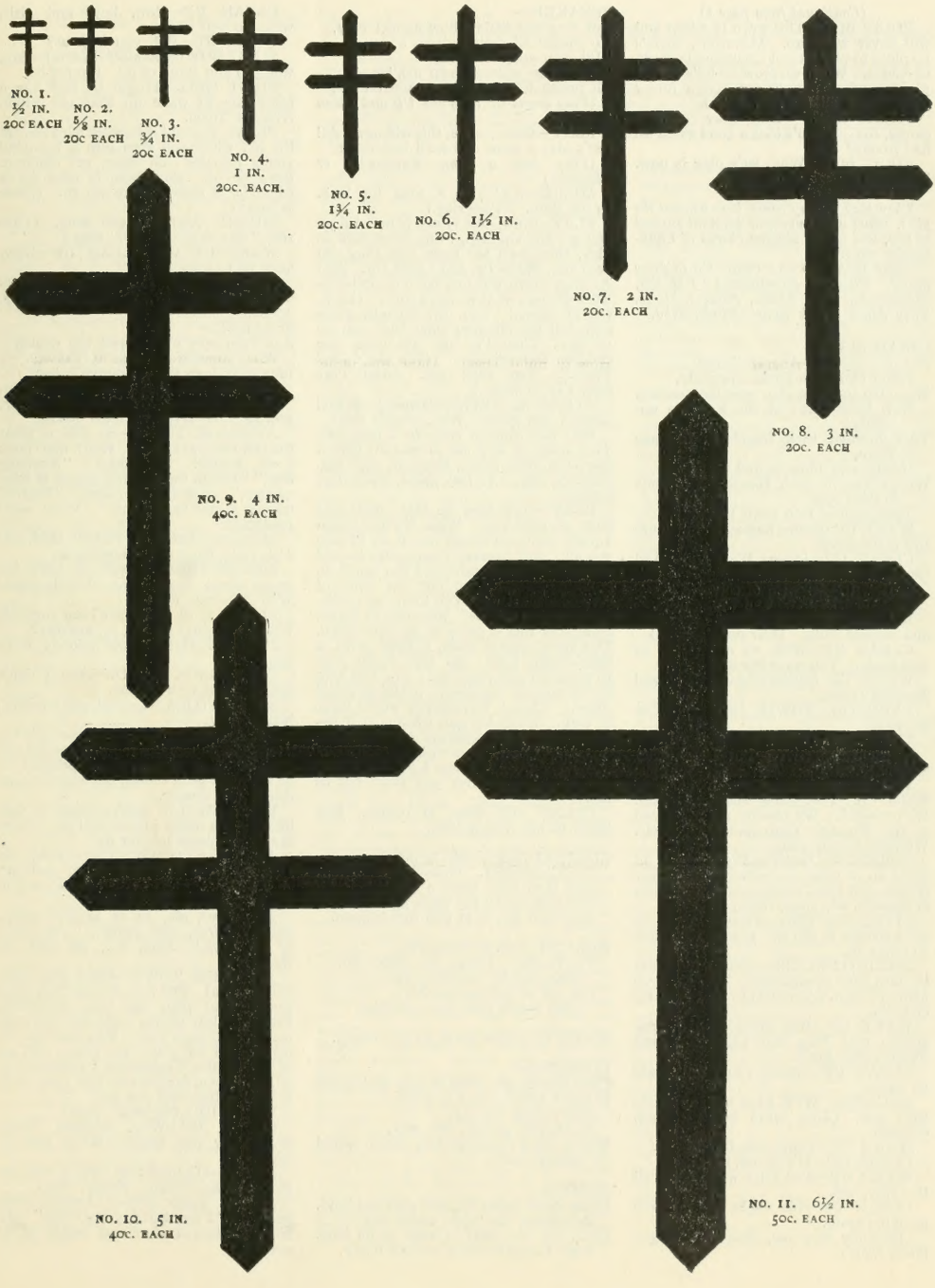


THE ENDS OF THE ARMS AND STANDARD ARE POINTED AT AN ANGLE OF 45 DEGREES FROM THEIR CENTER LINES MAKING THE ENTIRE ANGLE AT EACH POINT 90 DEGREES.

The National Association is prepared to supply cuts of the standard form of the double cross in the sizes here shown and at the prices indicated. The prices include delivery and are as near cost price as we can make them. Cash or stamps should accompany orders amounting to less than $1.00. Designate cuts both by size and by number.

Due to the criticism of the quality of the cuts which the National Association has supplied previously, all stock on hand was discarded, new master plates were made, and an entire new stock of cuts was purchased.

You are at liberty to have your own cuts made from the specifications or from the reproduction herewith, but you can probably purchase them from us at less expense.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NO. 9. 4 IN.
40C. EACH
NO. 10. 5 IN.
40C. EACH
NO. 11. 6½ IN.
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(*Continued from page 1*)

FIRST BOY—This town is asleep and will never wake up. Meantime, there's no place to play except Chautauqua week, of course. When we grow up let's have a playground. Then we can have a Junior Chautauqua all the year round.

FIRST GIRL—And play exciting games, too. Wasn't that a good game we had to-day?

FIRST BOY—Why, let's play it now. There are enough of us.

ALL—Come on.

They play a relay game, boys against the girls, using a Chautauqua pennant instead of ball, and go off, singing chorus of Chautauqua song.

Enter Wake Up and Clean Up to fairy music. They are accompanied by Health, Cleanliness, Play, Music, Flowers, Birds. They dance a folk game—Kinderpolka.

SPEAKER—
But one day into Average Town
Came two little fairies sprightly,
Wake Up and Clean Up were their names.
How they stared at the town so unsightly!
They brought their friends to Average Town,
Health and Flowers and Play,
With a song in their hearts and a smile in their eyes
They danced into town that day.

WAKE UP (*coming forward*)—I am sure this is the place.

CLEAN UP (*joining Wake Up*)—And here is Average Town.

WAKE UP—Asleep, of course.

CLEAN UP—Flies and Mosquitoes.

WAKE UP—Yes, and Ugly Backyards and Impure Milk. Dear me! dear me!

CLEAN UP—Well, we might just as well begin. You wake her up.

WAKE UP (*calling*)—Average Town! Average Town!

AVERAGE TOWN (*sleepily*)—Who are you?

WAKE UP—Wake Up.

AVERAGE TOWN—But I say, who are you?

WAKE UP—Wake Up—my name is Wake Up. I've come with Clean Up. We're fairies. We usually are welcomed at the Woman's Club and the schools. We want to help you.

AVERAGE TOWN—Don't want to wake up or clean up, either. Come, my friends, tell these busybodies why. (*Calls to Excuses, who enter, right.*)

FIRST EXCUSE—Average Town is good enough as she is. It costs too much to clean up.

SECOND EXCUSE—There will *always* be flies and mosquitoes. There are so many of them it's useless to try to get rid of them.

WAKE UP—But we've brought you Health and Play and Cleanliness and Flowers and Birds.

CLEAN UP—Surely you won't chase us away.

EXCUSES—We'll have nothing to do with you. (*They laugh and withdraw, defiantly.*)

WAKE UP—Dear! dear!

CLEAN UP—It's no use, is it?

WAKE UP—And after we've come all this way, too.

CLEAN UP—We might just as well go home again.

(*They are very sad, almost weeping—minor chords.*

SPEAKER—
But that gay little fellow named Play,
He chased all their sorrows away;
"I'll help you," said he,
"While the children help me."
All praise to that fellow named Play!

(*Play comes up to Wake Up and Clean Up.*)

PLAY—Come, come, this will never do! Let's play a game and we'll feel better.

(*They play a game—Kulldansen or Blecking.*)

MUSIC—And sing a song for luck. In the Rain. (*They sing.*)

PLAY—Now, this is my plan. I'll go and get the children, bring them here to play, then we'll tell them how they can help you, Wake Up and Clean Up. And Average Town will just have to notice us when she sees what we have done. (*Turning to others.*) You, my friends, must each tell the children what they can do to help. Now I'm off. I'll bring the children immediately. (*Play the "Pied Piper."* You shall see. (*And Play dances off to music.*)

AVERAGE TOWN (*returning*)—What! haven't you gone? Why, what's this?

Play and children enter in a long line. They wind in and out to music (form a spiral) to Snail music, Bancroft, page 293. Children sing. As they finish, Play steps forward.

PLAY—Now here we are! Boys and girls, we need you! Wake Up and Clean Up are two good fairies who want to help you all. But Average Town is like the old witch in the fairy tale, and she won't do anything except send out her army of excuses against us. You know how stubborn Excuses can be. Regular old fogies. Some day this is going to be your town. You want a good town, a clean town, a wide-awake town. So let's begin now to wake up and clean up. You can help if you all pull together. (*Children crowd closer.*) There! I know you would want to help. Wake Up and Clean Up, I believe the boys and girls are our friends.

Boys and Girls cheer—Chautauqua cheer with Wake Up and Clean Up at the end.

FIRST BOY—But you must tell us how.

CLEAN UP—Why, of course. Just listen to my friends here.

CLEANLINESS (*steps forward*)—
I'm Cleanliness. Please do help me!
And then your town a joy will be.
Just pick up all the trash you can
And then put it in this rubbish-pan.

HEALTH (*coming forward*)—
I'm Health. I hope you know me.
Help me by swatting flies,
Get rid of all mosquitoes,
And watch your milk supplies.

WAKE UP—Now listen to my friends.

FLOWERS—
Plant flowers and vines in ugly back yards
It won't take us long to grow
And people will say,
As they're passing this way,
Who'd have thought this place would change so?

BIRDS—
Please don't forget us, dear girls and boys,
Remember the birds every day—
Don't rob our nests or wear us on hats.
Your thoughtfulness we will repay.

CLEAN UP—Now, boys and girls, what do you say?

WAKE UP—Will you help us?

FIRST BOY (*to the other children*)—Say, what do you think of it? I'm for it.

FIRST GIRL—It will be just like a fairy tale to wake up that old witch, Average Town.

PLAY—Perhaps if we work hard enough the old witch will turn into a beautiful young princess. So come, my children. Let's be off. But there is time for a game (*or a cheer*) before we go. (*Cheer or game.*)

MUSIC. And just one song. (*They sing "Hip, Hip, Hooray!" song.*)

WAKE UP AND CLEAN UP—Now, all of us to work.

They dance off, Play and the Fairies leading. Health, etc., helping them along. Music.

SPEAKER—
And then how busily sped the weeks;
What wonderful things were done!
Like busy bees those children toiled,
But they said that the work was fun.

Average Town enters, reading a paper, smiling. She is cleaner, better dressed.

AVERAGE TOWN—So this is what the children have done. Well! well! bless their hearts! (*Reading.*) "Swatting flies," "Found the breeding-places of mosquitoes," "Picked up tin cans," "Planted flowers in our back yards." Well! well! (*nodding*).

Mosquitoes and Flies, Impure Milk, and Ugly Back Yards come bounding in.

MOSQUITOES—There's no place for us any more. No tin cans, oil on the pools. Won't you save us?

FLIES—Most of us have been swatted. What are things coming to, anyway?

IMPURE MILK—And nobody buys me.

UGLY BACK YARDS—And I don't know myself with flowers.

MOSQUITOES—You helped us before; help us now.

AVERAGE TOWN—Too late—it's too late. The children have made me see my mistake. You traitors—you pretend to be harmless little things, but you brought disease and misery.

FLIES—Well, if you're going to talk like that we might just as well go. There are many places left for us.

AVERAGE TOWN—There won't be for very long if the boys and girls get busy. Now go, and never let me see you again.

Mosquitoes, etc., go off to slow music. Enter children, with banner, "I'm proud of my town." Play, etc., are with the children.

AVERAGE TOWN—Boys and girls, you've won! The last of your foes have gone! Your plan has been successful. Play, my dear fellow, come and live with us. We all need you. You shall have a playground for your very own. And all of you, Health, Cleanliness, I welcome you all. But you, fairies, now that your work is done, where will you go?

WAKE UP—Our work done?

CLEAN UP—Why, Average Town, we've only just begun. We're here to stay.

MUSIC—The children have a song for you, Average Town. Ready, sing!

Children gather around Average Town and sing "I am proud of my town." All give Chautauqua cheer and march off to music.

Have You Ordered Your Pamphlets?

Attention of the members of the Association is again called to the three new publications, "The Tuberculosis Directory," "Working Men's Organizations in Local Anti-Tuberculosis Campaigns," and "Dispensary Methods and Procedure," a copy of each of which will be sent free to members in good standing upon request.

The Tuberculosis Directory will be sold to non-members at 60c postpaid and the pamphlet on Working Men's Organizations will be on sale at 20c postpaid for single copy or 15c per copy in lots of 25 copies or more to one address. The price of the Dispensary pamphlet has not yet been determined.

In addition to these special publications, may we call the attention of members to the decision made last year that copies of the Transactions of the Twelfth Annual Meeting will be sent only to those members who so request. Following the success of the plan last year, copies of the Transactions of this meeting, bound in green cloth, will be supplied to members at fifty cents and to non-members at $1.50. The price of the volume, bound in paper, to non-members is $1.00.

Free Booklet on Transportation Agreement

Readers of the *Bulletin* who are interested in the passing-on agreement of the Committee on Transportation of the National Conference of Charities and Corrections, may secure free a booklet describing this agreement in detail from Fred M. Hall, Room 708, 130 East 22nd Street, New York. On April 7, Mr. Hall sent a letter on this matter to each secretary of an anti-tuberculosis association in the United States. The following paragraphs of this letter are significant:

"Definitely, we would like to enroll your organization as a signer of the transportation agreement described in the enclosed booklet. (See Fundamental Principles, page 24.) Over 600 societies and public officials are now thus united. Even if your society never itself pays for such transportation, your signature is very much desired, for it will mean that your influence will be used, against the practice referred to, with public relief officials, private charitable organizations, churches, lodges, trade unions, etc., as well as with the patient's friends and relatives. Moreover as a signer of the agreement you will be in a better position to get these officials or organizations to sign it, if they have not already done so.

"Dr. Hatfield informs me that the Executive Committee of the National Association recently gave its approval to the agreement, and I hope therefore that you will bring the matter to the attention of your Board, and will allow us to enroll your society among the other signing organizations. There is no fee or other charge, and a signing society may withdraw at any time, if dissatisfied with the agreement. As a matter of fact only one organization has so withdrawn since the agreement was first entered into twelve years ago."

Medical Notes, Abstracts and Reviews

The object of this monthly department of the "Bulletin" is to put physicians in easy touch with medical and scientific literature, both American and foreign, including magazine articles, books, reports, etc., that bear directly or indirectly upon the treatment and prevention of tuberculosis. This is not a department for news and editorial comment. Its function is rather that of a catalogue or a librarian. Any material for this department of the "Bulletin" should be sent to Dr. George Mannheimer, 41 West 51st Street, New York, who has been chosen medical editor.

Readers of the "Bulletin" who wish to have copies of the publication sent to physicians working in dispensaries, sanatoria, laboratories, and in other forms of tuberculosis activities, who are not now receiving it, should send in such lists of names to the National Association. The "Bulletin" is sent free to those who are engaged in anti-tuberculosis work.

Symposium on Tb.—The cutaneous tuberculin test is of value if we consider the finer details of the reaction, such as time of onset, intensity, and maximum degree. A reaction which comes on within a few hours, reaching its maximum within twenty-four hours and being of marked intensity, is indicative of active Tb. Latent cases should be under the care of a physician just as much as cases of latent syphilis or quiescent appendicitis. A patient giving symptoms pointing to possible Tb. should never be pronounced non-tbc., because no signs are found in the chest by physical examination. Two signs are of value in early pulmonary Tb.: (1) a lagging of one side of the chest due to reflex inhibition of the diaphragm and (2) a spasticity of the muscles over the apex, especially the trapezius and sterno-cleido-mastoid, which derive their nerve supply from the same segment of the cord as the sympathetic fibres coming from the lungs.—*J. C. R. Wettstein, Ill. Med. Jour., Nov., 1915.*

Tb. in Children.—The tubercle bacillus passes through the mucous membrane without producing a local lesion. After being carried to the lymph nodes by the phagocytes it may be taken up by the lymph channels and, through the throacic duct, be carried to the venous system and be lodged in any part of the body. They are not carried by extension directly from the regional lymphnodes. Therefore pulmonary Tb. may be the result of infection through the alimentary tract. In children our attention should first be directed to the lymphnodes. In tbc. children the nodes are small, hard, and can be traced along the course of the lymphatics as small, hard beads. These glands disappear as the disease spreads to the lungs, but, if after their disappearance no signs of pulmonary disease can be discovered, the large nodes were probably non-tbc. Children with Tb., no matter how well nourished, have a weary expression about the eyes, and the lower lid drops so as to show a line of sclera below the cornea. A valuable sign consists of a bluish-pink triangle with the lower lid as its base. The pupils are dilated and often unequal, the larger pupil being on the side of the affected apex. Excoriations in the nose and about the alæ nasi are found in children exposed to repeated, massive infection. The teeth are decayed and the gums diseased. Tonsils and adenoids should not be removed in tbc. children until their immunity has been raised by means of some preparation of the tubercle bacillus. The superficial veins of the chest in tbc. children are enlarged, due to swelling of the mediastinal lymphnodes. The latter gives also rise to a systolic murmur at the right border of the manubrium when the head is thrown back (Smith's sigh). We find the base of the lung more often involved in children than in adults. Of more value than the physical examination in children is the cutaneous test, provided that the character of the reaction is taken into account.

Tuberculin is of great value in the treatment of children, as they bear larger doses than adults. Surgical operations should not be undertaken until the patient can tolerate a dose of 0.4 mgm. without reaction. This is because there are numerous living tubercle bacilli in the caseating nodes which may be set free during the operation and aggravate the patient's condition. — *Tb. in children, O. W. McMichael, Ill. Med. Jour., Nov., 1915.*

Destruction of Tubercle Bacilli in Milk by Electricity.—Experiments were done with milk of a tbc. cow, with milk of a cow with Tb. of the udder, with milk artificially infected with the bovine bacillus, and with milk infected with caseou material of glands taken from a tbc. guinea-pig. In all cases the infected milk was divided into two parts, half being treated by electricity and the other half being used as control. The guinea-pigs injected with the treated milk did not develop Tb., while those treated with the control did.—*The destruction of tubercle bacilli in milk by electricity, J. M. Beattie and F. C. Lewis, British Jour. of Tb., Jan., 1916.*

Control of Secondary Infections.—A patient with pulmonary Tb. should be protected from secondary infection, like "colds," bronchitis, or influenza, just like the surgeon avoids secondary infection in a cold abscess. This should be done by keeping away visitors or attendants suffering from such conditions.—*The control of secondary infections in Tb., R. P. White, British Jour. of Tb., Jan., 1916.*

Tuberculin Therapy. — The beginner should confine himself to one preparation, preferably bacillus emulsion, and make his own solutions. There should not result a too great depression of the normal physiological functions. Patients with severe mixed infection, diabetes, nephritis, miliary or advancing pulmonary Tb., do not react favorably. The special field for tuberculin is the group of patients with fair resistance, little or no fever, stationary or slowly progressive, who cannot go to a sanatorium. In sanatorium patients, those who receive tuberculin usually do better than those who do not. Lymphadenitis cases do better than pulmonary cases. Tuberculin can be administered by the careful general practitioner without resorting to such tests as blood counts, opsonic index, or complement fixation. The resulting reaction should be mild, but doses of one-millionth of a milligram are probably inert, and larger doses should be used.—*Tuberculin Therapy, H. L. Shively, N. Y. Med. Jour, Jan. 8, 1916.*

Tuberculosis.—Tb. of the lymphnodes in children under five years is the result of

bovine infection in about 35 per cent. of cases, but pulmonary Tb. almost never. Tuberculin does not produce immunity to the disease and may even produce hypersusceptibility. Various living cultures of the tubercle bacillus, including that of von Ruck, have so far proved failures. The attempts of Webb to produce immunity by the inoculation of live bacilli have been abandoned. "A living culture used as a vaccine produces a heightened resistance, but as to the safety or desirability of such vaccine the future must decide" (Theobald Smith). The use and benefits of tuberculin in pulmonary Tb. has decreased of late.

Dr. E. R. Baldwin says that too much emphasis has been placed upon the dangers of infection to healthy adults, and that closed cases, such as pleural, peritoneal, or glandular Tb., should be supervised according to some special method, so the public will not confuse them with open cases. Advanced cases should be afforded care in institutions. All milk should be pasteurized, as Tb. in cattle is on the increases. The visiting-nurse is the most important agent in the educational propaganda.—*Tuberculosis, A Review, H. M. Biggs, N. Y. Med. Jour., Jan. 22, 1916.*

Hasty Diagnosis.—About 80 per cent. of cases classed as incipient in German sanatoria have been found to be not sick at all or as suffering from some other disease and fit to be sent to the front. The belief that any case of Tb. discovered early will be cured is wrong. There are cases which are malignant from the beginning, and which are not affected by any form of treatment. On the other hand, in slowly progressing, chronic cases there is no reason for hurry in the making of a diagnosis, since the patient will not be harmed much by waiting a few weeks. For dependent consumptives sanatorium accomodation is scarce; they have to wait for admission, whether the diagnosis is clear or not. By haste in diagnosis many non-tbc. cases gain admission to sanatoria, thus depriving tbc. cases of accommodation. Doubtful cases should be kept under observation for a number of weeks, while they are allowed to continue at their work. They may be told that they have no Tb., but that they are threatened with it. Phthisis consists of a number of acute or subacute attacks with intervening periods of quiescence. Treatment aims at rendering the periods of quiescence longer. Most cases of incipient Tb., such as gain admission to sanatoria at present, are spontaneously cured or arrested. It is the active cases which should be admitted. Sanatoria will not fulfil their purpose until this plan is adopted. A hasty diagnosis of Tb. may prove more disastrous than neglect to diagnose an active and progressive case.—*Hasty diagnosis of pulmonary Tb., M. Fishberg, Med. Record, Jan. 22, 1916.*

Stain for Tubercle Bacilli. — 1. Three-per-cent. alcoholic solution of crystal violet.

2. One-per-cent. aqueous solution of ammonium carbonate.

3. Ten-per-cent. solution of nitric acid (C. P.).

4. Ninety-five per cent. alcohol.

5. Saturated alcoholic solution of Bismarck brown, of which enough is added to water to make a tincture of iodine color.

Technic.—Make smear or prepare urinary sediment as usual. Mix one part of 1 with three parts of 2. Add this solution to smear, bring to steaming-point, and cool three successive times. Pour off excess of stain and wash in tap water. Rinse with 3 and 4 alternately until the specimen is colorless. It is not necessary to wash. Add solution 5 for three minutes. Dry, add cedar-oil, and examine with immersion lens.

The tubercle bacilli stain a pretty violet with a light brown, almost yellow background, and are much more easily found when using this stain than with any other. It can be used for urinary sediment as well as for sputum and for tissues.—*A stain for tubercle bacilli, E. Klein, N. Y. Med. Jour., Jan. 29, 1916.*

Operations on Heart and Lung Patients.—Wetherill's experience with pulmonary and heart substandard risks has been uniformly favorable when operations have been necessary, but he advises that extraordinary precautions must be employed to safeguard such patients from danger, and that the time of the operation should be as brief as possible. W—. never refused such an invalid a necessary surgical operation because he happened to have a heart lesion or even advanced pulmonary Tb. He believes that such operations on such patients may be done with greater safety in a high and dry climate than in the humid and torrid regions. Certainly their recovery is more prompt and complete under Colorado atmospheric conditions than at sea level. He has observed many times the most astonishing improvement in the lung and heart lesions of such patients, and in their general well-being, when, for example, the operation may have been done for the elimination of a local focus of infection from which the pulmonary or heart complications may have been maintained and perpetuated or may have had their origin. He urges that the surgeon should have in such an emergency the advice and counsel of a capable and expert internist to advise such preparatory régime and medicinal treatment as the patient requires. If time permits, absolute rest in bed previous to operation, with such treatment as may bring about the highest attainable measure of cardiac compensation and pulmonary rest, is indispensable. At this stage, as well as during the period of convalescence, the patient should be under the closest scrutiny of the internist, who should have a free hand and the largest liberty in directing any treatment that he may regard as essential to the welfare of the patient.—*Heart disease and pulmonary Tb. as contraindications to surgery, H. G. Wetherill, Colo. Medicine, Jan., 1916.*

Children's Classes in Tb.—One of the most promising developments of the Tuberculosis Clinic service throughout the city has been the establishment of special children's classes. These classes are designed to care for, not only the children patients of the clinics, but also the children of the clinic's adult patients—those who are known to have been exposed to infection.

In these classes, which are held on Saturday morning, every effort is made to carry out preventive measures and to secure for all the children proper disposition either in preventoria, sanatoria, or open-air schoolrooms.

An important feature of the children's clinic work has been the courses in physical exercise inaugurated at the Chelsea Clinic by the Society for Prevention and Relief of Tuberculosis, and subsequently introduced into other clinics through the co-operation of the Department of Education. The classes have been so well attended and have been so beneficial in improving or maintaining the good health of the children and holding their interest in the clinic that it is hoped it may be possible to extend these classes to other clinics.

During the coming year it is proposed to carry on, simultaneously with these classes, a control class for the purpose of comparison.

It is confidently expected that not only will great benefit accrue to the children, but that interesting statistical data will presently be available—*Weekly Bulletin, N. Y. City Dept. of Health, Feb. 12, 1916.*

Nephrectomy in Renal Tb.—Young patients with early lesions of the kidney which usually show considerable cortical Tb. and perinephritis do less well after nephrectomy than those of more advanced age. Male patients offer more difficult problems in treatment than females, and the prognosis is less favorable. Genital lesions are uncommon in the female, while 32 per cent. of the male cases show genital involvement. Early mortality should not exceed 5 per cent. and late mortality not more than 20. Sixty per cent. of the cases were cured, in which there was unilateral involvement. In 10 to 15 per cent. of the cases the progress of the disease will not be checked by nephrectomy. The results for their series for drainage of the wound after nephrectomy compare favorably with undrained wounds in recent cases in regard to sinus formations. There is approximately 25 per cent. which heal by first intention and 75 per cent. in which sinuses develop, irrespective of the method of wound closure employed. In undrained cases sinus development is late and where the follow-up system is not carried out may give a false idea of the value of the treatment.—*Surgery, Gynecology, and Obstetrics, Dec., 1915, E. G. Crabtree and Hugh Cabot, Renal Tb. treated by nephrectomy.*

Tb. in Infancy. — In a series of 62 successive necropsies Tb. was found in 25, and was considered the direct cause of death in 23 cases, and as the contributing cause in the other 2. A primary lesion was found at the portal of entry in 22 of the 25 postmortems. The 3 cases in which a primary lesion was not found at the portal of entry all showed chronic Tb. of the bronchial lymphnodes, but none of the mesenteric lymphnodes. The primary lesion was found in the lung in 20 cases, and in the intestine in 2 cases. If we add to the 20 cases the 3 in which the only chronic lesions were found in the bronchial lymphnodes we have a ratio of 23 cases of infection through the lung to 2 cases of infection through the intestine. The favorite situations were at the apex and near the hilus. The bronchial lymphnodes were found tbc. in the 20 cases having a primary lesion in the lung, and in 3 cases in which no

primary lesion was found. They were involved alone in 16 cases, including the 3 without evident pulmonary lesion. The mesenteric lymphnodes were tbc. in addition to the bronchial lymphnodes in 7 cases having a primary lesion in the lung, and were involved alone in the 2 cases having a primary lesion in the intestine. Tbc. ulceration of the intestinal mucous membrane was found in 7 cases beside the 2 in which this lesion was considered primary. In all cases the ulcers were multiple.

Chronic Tb. of the lymphnodes was found in every case. The brain was not examined in 3 cases, and no lesion of the meninges was found in 2 cases. In 19 cases a tbc. meningitis was found, which was the immediate cause of death. In only 5 cases were animal inoculations made to determine whether the infection was with a human or with a bovine type of bacillus. The bovine type was found in 1 case, and the human type in 4 cases. The case in which the bovine type of bacillus was found was one of those having a primary lesion in the intestine and the one known to have been fed with contaminated milk. The 4 cases in which a human type of bacillus was found included one of the cases in which there was no apparent primary lesion. In 4 cases only was there a definite history of exposure to Tb. obtained.—*Tb. in Infancy, C. H. Dunn, Am. Jour. of Diseases of Children, Feb., 1916.*

Barlow San. Rept.—The average stay of the patients in the San. was 221 days. Heliotherapy was added to the former methods of treatment, *e. g.*, the chest, front, and back were exposed to the direct rays of the sun in a number of cases. The abdomen was exposed in a case of tbc. enteritis with apparent benefit.

Pupil nurses are supplied from two general hospitals in Los Angeles to serve three months. They receive training in the care and treatment of pulmonary diseases under the head nurse and lectures from the resident physician.

Among 743 patients treated during the twelve years of the existence of the institution there were 38 cases with Tb. of the larynx, 5.1 per cent., 29 of them are dead, 9 are alive with laryngeal lesion arrested or cured.—*12th Annual Report of the Barlow Sanatorium Association, 1915, Los Angeles.*

Early Diagnosis.—The early diagnosis of active Tb. depends on personal experience and interpretation. Active=progressive; latent=arrested disease.

Signs of activity are:

1. A labile pulse, especially permanent acceleration without rise in temperature and with scanty lung signs.

2. A lymphocytosis in the absence of lues, actinomycosis, Graves' disease.

3. Rise of rectal temperature over 100.4 after exercise, which does return to at lease 99.5 after a half hour to one hour of rest.

4. In the sputum: elastic fibres, small streaks or specks of blood, tubercle bacilli.

5. Apical rales; increased whisper; increased muscle tension.

6. A marked positive cutaneous test; a positive conjunctival reaction; a focal reaction after a *small* subcutaneous dose.

Incipient doubtful cases should be left at their occupation to so better test their activity by two weekly examinations of their lungs, their weight, and a regular temperature record.—*Zur Frühdiagnose der aktiven Lungen Tb., O. Amrein, International. Centralblatt f. Tb. Forschung, No. XII, 1915.*

Spontaneous Pneumothorax.—The author reports the following five cases:

1. A young man, during a cold, has sudden pain in the right side. A few days later, Dec. 2, 1909, examination reveals right pneumothorax. Uneventful recovery in six weeks. On Nov. 4, 1910, after lifting a weight, pain in the left side. Examination reveals complete left pneumothorax. Uneventful recovery in four weeks. Recurrence of left pneumothorax on Dec. 24, 1910. In Oct., 1913, cough, sputum, signs of tbc. infiltration in both upper lobes, tubercle bacilli in the sputum.

2. Healthy young man has sudden pain in left side of chest followed by dyspnea on exertion. Examination the following morning, Nov. 30, 1910, reveals complete left pneumothorax. Uneventful recovery in four weeks; has remained well since.

3. Healthy patrolman, aged 38 years, has sudden pain on left side, followed by dyspnea on exertion. Examination reveals left pneumothorax. Uneventful recovery in four weeks; has remained well.

4. Young man, aged 35 years, with relatively inactive chronic pulmonary Tb., suddenly has severe pain in left side. Examination reveals left pneumothorax. No constitutional symptoms develop and the pneumothorax heals uneventfully in five weeks.

5. A healthy man, aged 29 years, suddenly has severe pain in right side on the morning of July 29, 1914, followed by a little dyspnea on exertion. Examination on Aug. 17, 1914, reveals a right pneumothorax which has almost completely cleared up. Patient has remained well since then.

These cases illustrate: (1) How insidious may be the onset of pneumothorax; (2) what few symptoms it may occasion; (3) how easily, upon a casual examination, the condition may be overlooked; (4) the perfectly benign course of the affection; (5) the occurrence of an insidious benign type of pneumothorax in perfectly healthy individuals as well as in those with manifest pulmonary disease. Modus of pleural rupture: (a) vesicular blebs; (b) interstitial emphysematous blebs around pleural adhesions.

The condition predominates in males; the vast majority occur in young adults. The exciting cause in many instances is exertion, which may be slight. Not infrequently it comes on without any provoking cause. Usually restitution in six weeks. Physical signs: diminished mobility; increased resonance down to extreme lung borders which do not further expand on deep inspiration; heart displaced; absence or great diminution in the intensity of breath sounds.—*Amer. Journal of the Med. Sciences, L. Hamman, Feb., 1916.*

Autoserotherapy.—Autoserotherapy is a reliable and safe method of treatment within reach of every physician. Within a week or ten days the fluid disappears in 80 per cent., and the subjective symptoms are ameliorated. In 10 to 15 per cent. the treatment fails. The quantity of fluid to be reinjected varies with the amount of fluid in the chest and the age of the patient. In an adult with a large effusion the initial injection is 10 c.c., repeated every three to ten days. A purulent effusion is the only contraindication.—*Autoserotherapy versus artificial pneumothorax, E. A. Pierce, Northwest Med., Dec., 1915.*

Lung Injury and Lung Tb.—Rieder, the clinician and roentgenologist of Munich, reports the case of a twenty-four-year-old healthy soldier who received a bullet through the right acromial region, penetrating into the lung. Three months later, cough, fever, night sweats and positive sputum. X-ray examination: tubular bullet track through entire right lung parallel to spine; in both upper lobes numerous minute-old tbc. foci, several of which lie in the bullet track; the infantry bullet imbedded in the mesentery. Three months later marked spread of the Tb., especially around the diaphragmatic end of the track, where numerous fresh, fine, round disseminated foci had appeared. In another soldier a revolver projectile was found in the lower lobe; around it an extensive tbc. pleurisy with numerous fresh tbc. foci. This had apparently developed from a hemothorax which had become infected from an old Tb. of the hilus.

In consequence of a lung injury a latent Tb. can become manifest or a manifest Tb. aggravated, especially if the old focus is directly injured. It is not proven, however, that a healthy lung can become tbc. through traumatism.—*Lungenschuesse und Lungentuberkulose, Rieder, Münch. Mediz. Wochensch., Dec. 7, 1915.*

Roentgen Treatment of Pulmonary Tb.—Küpferle and Bacmeister reported in 1913 a series of experiments on rabbits inoculated with Tb. and systematically exposed to the Roentgen rays. The outcome was decidedly encouraging in many of the animals, and inadequate dosage explained most of the failures. In a later series they used large doses at shorter intervals, and report remarkable success; the tbc. process was evidently arrested and healed over but the tubercle bacilli themselves were not killed. No influence from the mercury vapor lamp or cholin could be detected. The dosage found effectual for the rabbits was 20 or 23 X surface energy, given at three or five day intervals. The research was done under a subsidy from the Koch foundation, and the results are regarded as so promising that roentgenotherapy with hard, filtered rays is now being used in the clinic, and Bacmeister here reports twenty cases of stationary pulmonary Tb., without fever, and with a tendency to latency, in which the treatment was applied, as also in a number of febrile and chronically progressive cases. The course has been completed by ten patients in this latter group, and they are all clinically cured. In every case benefit was manifest; three of these patients had been in his sanatorium (St. Blasien) for fourteen, eight and five months, but the Tb. had not mitigated its progressive character until the Roentgen treatment was applied. Remarkable benefit is apparent in a number of the twenty-three others in this group still under treatment. The experimental and clinical data all confirm that the Roentgen rays act only

on the relatively rapidly growing tbc. granulation tissue. Extremely virulent and rapidly destructive processes are not influenced by them, nor cheesy processes, nor the tubercle bacilli themselves. The principles for application and the technic are the same as for superficial tbc. processes. Success depends on proper dosage and intervals, supplemented by outdoor life with graduated exercise and repose. Roentgen treatment is particularly promising, in combination with the mercury-lamp treatment, for a lung compressed by induced pneumothorax and after thoracic surgery.—*Experimentelle Grundlagen zur Behandlung der Lungentuberkulose mit Rontgenstrahlen, L. Küpferle & A. Bacmeister, Deutsche Med. Wochensch. XLII, Jan. 27, 1916.*

Modes and Periods of Infection.—All modes of infection other than by inhalation and ingestion play too small a part to be considered. Clinical and experimental evidence bearing on these two modes only is therefore reviewed and analyzed by the author, who reaches the following conclusions: The respiratory tract provides the route for infection in the majority of cases of Tb., although the alimentary tract is a frequent portal of entry for the tubercle bacillus. This organism can traverse the mucosa of the alimentary canal without leaving a lesion at its point of entry. Such passage takes place most readily during the digestion of fats, and the organisms enter the chyle and pass into the blood stream by way of the thoracic duct. Thence they are carried to the lungs, where they are largely filtered out. The ailmentary mode of infection is particularly frequent in children, and infancy and childhood are the periods of life at which the human being is specially susceptible to infection with Tb. Therefore no campaign against the disease which omits the protection of children can be successful. Tbc. infection may occur at any age, but it is less frequent in adult life than is commonly believed.—*Modes and Periods of Infection in Tb., M. P. Ravenel, Jour. A. M. A., Feb. 26, 1916.*

Blood in Tbc. Meningitis.—Two hundred and fifty-two blood counts were made on 169 cases of tbc. meningitis. The average leukocyte count was 20,900 per c.mm. with an average polynucleosis of 72.6 per cent. Only ten, or 4 per cent., of the counts were below 10,000, and twenty, or 8 per cent., were above 30,000. The lowest total count was 5,400, and the highest 70,000—the latter occurring in an uncomplicated case. The polymorphonuclear percentage ranged from 26 to 91. The age of the children varied between 2 months and 4½ years. It was thought that the variations in the blood picture might be explained by the presence or absence of an added infection, but an attempt to establish this relationship was not successful. However, the total leukocyte count and the proportion of polymorphonuclear cells vary with the stage of the disease—namely, both counts increase as the disease advances. There is a relative but not absolute diminution in the mononuclear elements of the blood. Morgan found a definite relationship between the intensity of the tuberculin skin reaction, on the one hand, and the total leukocyte count and polymorphonuclear percentage on the other. Diminution in the former is usually accompanied by an increase in the latter, both being evidences of a failing resistance by the body to the tbc. infection.—*Study of the blood in tbc. meningitis, A. A. Morgan, Amer. Jour. Dis. of Children, U. XI No. 3, March, 1916.*

Non-Tuberculous Cases in State Sanatoria.—Of 198 cases at the Boston Consumptives' Hospital at Mattapan which came to autopsy 23, or 11.5 per cent., proved to be non-tbc. Of these 23, 8 proved to be pneumonic sequelæ; 5, chronic cardio-renal disease; 2, septicæmia; 5, malignant neoplasm of the lungs; 2, aortic aneurism; and 1, actinomycosis. Among 353 cases which came to autopsy at other institutions, 38, or 10.8 per cent., were non-tbc. conditions. In view of this number of errors among advanced cases, what must be the number among cases designated as incipient?—*Non-tbc. cases in state sanatoria, E. Washburn, Boston Med. & Surg. Jour., Oct. 28, 1915.*

Errors in Diagnosis.—Among cases which were wrongfully considered to be Tb. were: chronic influenza, hypernephroma of the lungs, chronic empyema, syphilis, and abscess of lung.—*Errors in the diagnosis of pulmonary Tb., J. B. Hawes, 2d., Boston Med. & Surg., Jour., October 28, 1915.*

Lymphocytes in Tb.—Two hundred and ninety differential counts of blood smears taken from 100 patients with chronic pulmonary Tb. and from 22 apparently healthy persons. 250 cells were counted in each case; the stain used was Wright's, made fresh every other day. The following conclusion seems justifiable: 1.—That if the lymphocytes are below 20 per cent it is seldom that the outlook is good. 2.—That when the lymphocytes are above 25 per cent it is indicative of an increased resistance to the tbc. infection and that as a rule the prognosis is good.—*R. S. Cummings, Lymphocytes in Tuberculosis, Interstate Med. Jour., Jan. 1916.*

Eradication of Tbc. Cattle from Milch Herds.—In 1911 the city of Sherbrooke, Que., passed a by-law compelling the removal of all cattle from herds supplying the city with milk, which reacted to the tuberculin test. Of 650 head, 13 per cent reacted; these were removed and replaced by others. A second test of these 8 months later gave 1½ per cent. of reactors. A third test 18 months later gave only 4 reactors out of 674 head, a percentage of ½. Compensation for the destroyed cattle is not advisable, as it would tend to promote carelessness on the part of the owner. The following regulations are important: Window lighting equal to one tenth the area of the stable floors, lime washing of interior twice yearly, cleaning and grooming of cattle, covered pails, sterilization of milk utensils, removal of manure and the erection of special buildings for the handling and storing of milk. The best temperature is 50 degrees F. in a well ventilated stable.—*A. V. Tracy, D. V. S., The Eradication of Tbc. Cattle from Milch Herds, The Public Health Journal, Feb., 1916.*

Health Insurance and Prevention of Tb.—Tb. is often an industrial disease for which the employer is largely responsible. The community is often responsible for diseases due primarily to defective housing conditions, while the worker has his share of responsibility for his own illness. Through health insurance, prevention of disease becomes the task of the community, employer and worker by distributing the cost of sickness among all three. In Germany, since the introduction of social insurance the rate of cures in Tb. has increased markedly. In 1897, 68 per cent were so far cured at the end of treatment that no danger was felt of their becoming unable to earn their livelihood; this percentage reached 83 in 1909. The Tb. death rate decreased from 34.4 per 10,000 in 1880 to 16.6 in 1909, and to 13.65 in 1913. These results were obtained after systematic preventive and curative measures, since it was seen to be a paying proposition; in 1909, 67 per cent of the total amount spent in the care and treatment of disease was spent on Tb.

The American Association for Labor Legislation believes that sickness insurance is the most potent means for the prevention of illness and especially of Tb.—*Health Insurance and the Prevention of Tuberculosis, J. B. Andrews, Med. Record, Feb. 26, 1916.*

Genito-Urinary Tb.—The normal kidney is permeable to microorganisms, including the tubercle bacillus. In kidney and bladder lesions the course of the organisms is almost always downward, as the mouths of the ureters are an efficient barrier to the passage of the bacteria upward. The bladder can be injected in the cadaver to the point of rupture without one drop of fluid passing back into the ureters. Tbc. infection extending from bladder to kidney is extremely rare. Genito-urinary Tb. can occur in a person otherwise perfectly healthy. In renal Tb. renal symptoms are the exception rather than the rule. An impalpable kidney not only is no indication of the absence of renal Tb., but is not an indication of the absence of an enlarged kidney from disease. Even in thin patients a diseased kidney may be impalpable owing to marked caseation which renders the kidney small, or the organ may not descend sufficiently to be palpable. The tubercle bacilli can usually be found with ease in the urine in cases of renal and vesical Tb., but in exceptional cases they may not be found. In such cases the finding of the Much granules by special staining may be of some significance. In females the diagnosis of renal Tb. can often be made by palpating per vaginam the diseased lower end of the ureter. In addition to the great value of the cystoscope, X-ray will sometimes show the presence of calcified nodules in a diseased kidney. In private cases the animal inoculation test is more practicable than in hospital cases, since the latter are difficult to be held waiting 5 or 6 weeks.

The results of surgical treatment are extremely encouraging. Some cases with worst lesions do best. Cases with tbc. disease in other parts of the genito-urinary tract are not as favorable, but not hopeless.—*The Diagnosis of Genito-urinary Tuberculosis, J. W. Churchman, Med. Record, March 18, 1916.*